Feed the futureland: an actor-based approach to studying food security projects

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Abstract

Critical development and food studies scholars argue that the current food security paradigm is emblematic of a 'New Green Revolution', characterized by agricultural intensification, increasing reliance on biotechnology, deepening global markets, and depeasantization. High-profile examples of this model are not hard to find. Less examined, however, are food-security programs that appear to work at cross-purposes with this model. Drawing on the case of Feed the Future in Guatemala, I show how USAID engages in activities that valorize ancestral crops, subsistence production, and agroecological practices. Rather than the result of macro-level planning—of either the New Green Revolution or a greener reform regime—I argue that nonconforming food security projects can be traced to individual actors and their interactions on the ground. I draw on an 'interface approach' (Long 1990), focusing on the lifeworlds of development workers, their interfaces with each other, and with the to-be-developed. Doing so reveals how food security projects are significantly shaped by the relationships and interests of development actors enmeshed in particular organizational and national settings. This research contributes a fresh perspective on the food security paradigm and its role within the 'corporate food regime'.

I mean, the central problem here is *tierra* (land)…government programs that are addressing food security don't look at our reality as *campesinos* or communities. Not just in my community but all the communities. They give a bag like this [indicating a small size with his hands] with like ten kilos of food and this is what they call 'food security'. How long can a 10-kilo bag of food last? If it's a big family, not even for a week; it would only last a few days. When we were working with the *Buena Milpa* project, we always discussed that issue…that this was not real food security. Rather, our approach to food security was focused on the rescue and conservation of seeds to ensure that people had their maize seeds, their bean seeds, their chilacayote seeds, their amaranth seeds, all their native seeds to be able to subsist. We taught farmers to produce household gardens, to produce on a small scale, only for their consumption…so that he begins to think, not only in the international market

way over there, or in the population over there—which can be good—but so he thinks about himself. So that he produces on a small scale, ensuring that he has access to food consistently. That, that would be food security.

-Edgar, an employee of *Buena Milpa* a USAID Feed the Future project.

Introduction

Edgar's definition of food security centers on the problem of *tierra* (land) as the primary cause of food insecurity. He critiques the idea of food aid and instead emphasizes the need to conserve native seed diversity and ensure farmer control over seeds. It also gives priority to subsistence production over market or export-oriented production. What's striking about Edgar's account is that the project he describes, *Buena Milpa*, is part of USAID's market-based Feed the Future (FtF) project—what food studies scholars have categorized as a neoliberal food security project that fits squarely within the New Green Revolution (Holt-Giménez and Altieri 2013; Nally 2016).

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FtF, an Obama-era food security initiative brands itself as a break from the past, an outside-the-box approach to the problem of food insecurity, born from the lessons learned from past failures (USAID 2021). In its branding, FtF emphasizes markets, involvement of the private sector, and technology—and thus become an easy target for critical food studies scholars. Specifically, FtF has been critiqued as a "turbo-charged Green Revolution" (Nally 2016; 564). On the one hand, FtF lends itself to this critique. FtF has leaned into the Green Revolution analogy, calling their work with the Indian Government the "Partnership for an Evergreen Revolution" (FtF 2012; Nally 2016) and their work with the Gates Foundation in Africa the Alliance for a Green Revolution in Africa (AGRA). Beyond branding, in Bangladesh, Ethiopia, and Nepal—three FtF target countries—FtF has actively promoted hybrid seed varieties like rust-resistant wheat seeds. In high-level policy documents, FtF boasts of helping develop "drought-resistant" cowpea varieties that can "potentially increase yields in Sub-Saharan Africa by five-to ten-fold" (Progress Report 2012:23). Such projects resemble 1960s Green Revolution attempts to increase agricultural productivity in the Global South through the introduction of hybrid grain varieties which require heavy fertilizer usage, and irrigation (Friedmann and McMichael 1989; Patel 2012; Rosset et al. 2000).

However, this New Green Revolution framing does not accurately describe the range of programs employed by FtF Guatemala. In particular, examples that promote traditional crops, subsistence agriculture, and agroecological practices—like those Edgar describes—defy this prevailing characterization of contemporary food security practice. One common explanation for the existence of more environmentally and socially responsive food projects or policies is cooptation—they selectively respond to social movement demands to stabilize capital accumulation (Friedmann 2005; Guthman 2004; Newell and Taylor 2017). The cooptation of environmental social movements more broadly, and of agroecology specifically is not new (Buttel & McMichael 2005; Holt-Giménez and Altieri 2013). While cooptation or greenwashing may be an effect or outcome of these FtF projects, this paper addresses apriori questions: How do food security projects get made? What is the relationship between food security policy and practice? And, what helps to explain nonconforming food security projects?

Rather than reflective of a coherent master plan—of either the New Green Revolution or a greener reform regime—I argue that nonconforming food security projects can be traced to individual actors and their interactions on the ground. I draw on an 'interface approach' (Long 1990), focusing on the lifeworlds of development workers, their interfaces with each other, and with the to-be-developed. I demonstrate how development workers navigate around

neoliberally influenced food system policy to instead forefront traditions and values important to Guatemalan food and farming. This finding does not mean such cooptation successfully challenges neoliberal food security policy, or these specific practices are widespread beyond this case. Rather it serves as a reminder that food security projects and the purposes they serve, like other techniques of government (Ferguson 2009, 2015; Li 2010, 2017), are matters worked out in particular sites and shaped by an infinite combination of factors, including but not limited to actors and the relationships between them.

In the following section, I outline food regime scholarship and efforts to categorize new dynamics underway in the 'food regime'. Then, I present the 'interface approach' as a way to make sense of some of the variegation visible in FtF but not accounted for in food regime scholarship. I introduce the background of the case and finally, show how actors and their relationships mediate market-based Feed the Future food security projects in Guatemala to forefront regionally important ideas and values related to farming and food.

The 'new green revolution and other 'green regimes'

The roots of the New Green Revolution critique can be traced back to food regime scholarship. Friedmann and McMichael's food regime theory has offered a durable perspective for understanding how the role of food and agriculture in global capital development has changed over time and in two distinct regimes (Friedmann 1993; Friedmann 1992; Friedmann and McMichael 1989). In addition to being specific geopolitical formations, the first and second food regimes brought contradictions and crises which served to usher in a transition to the next regime (McMichael 2009). More recent scholarship has debated to what extent we are living in a third food regime, and how to characterize it. McMichael refers to the current moment as the "corporate food regime" (McMichael 2005, 2016). In this regime, food security has been reframed from a national to a global problem, best solved by global markets, transnational trade, and multinational organizations like the World Trade Organization (McMichael 2005).

Extant literature about the role of development in the corporate food regime tends to liken the current agricultural development paradigm to a New Green Revolution—emphasizing continuity with the Green Revolution but also a marked shift informed by neoliberal ideology (Gengenbach et al. 2018; Holt-Giménez and Altieri 2013; Moseley, Schnurr, and Kerr 2015; Nally 2011, 2016; Otero 2012; Patel 2012). Just as the Green Revolution fueled post-war

national agricultural development, the New Green Revolution is assumed to service the corporate food regime. However, while the Green Revolution introduced the agro-industrial model to much of the Global South and accelerated the development of global capitalism, these programs were nationally organized and often depended heavily on state investments (McMichael 1997). Contemporary agricultural development projects continue to accept the technological paradigm of the Green Revolution, but in line with broader neoliberal trends, agricultural development projects are now reoriented toward growing agricultural export economies, the opening of agricultural markets, and the privatization or dismantling of government agencies (Otero 2012; Patel 2012).

From this perspective, the goal of agricultural development programs is to integrate peasants and smallholders into global markets through agricultural modernization and a shift to agro-exports (Holt-Giménez and Altieri 2013; McMichael and Schneider 2011; Patel 2012). McMichael and Schneider (2011) argue that the official development response can simply be called 'food security'. From their perspective, food security is a strategy that seeks to "improve small-farmer productivity with new inputs, and their incorporation into global markets via value chains" (119–120). It's assumed that providing modern inputs and resources to farmers will lead to eventual indebtedness and thus new opportunities for bigger farms and corporations to acquire more land. This is in service of the larger goal of depeasantization; efficiency improvements in agriculture push inefficient rural farmers into urban centers, urbanizing the population, and achieving "development" (Akram-Lodhi 2008; McMichael and Schneider 2011).

Competing green regimes

A smaller body of literature, however, suggests more complicated dynamics are underway (Friedmann 2016; Lang and Heasman 2015; Pritchard et al. 2016). In contrast to the totalizing narrative of the New Green Revolution, some scholars have documented the emergence of new niches within the Corporate Food Regime more generally and within agricultural development and food security programming more specifically. They argue that the destructive outcomes of the productivist, industrial agricultural paradigm on the environment and human health are no longer tenable and are ushering in competing paradigms of repair. Lang and Heasman (2015) for example, describe the rise of an Ecologically Integrated Paradigm, in which major transnational corporations and multilateral agencies like the World Bank increasingly invest in sustainable agriculture, as a response to the negative externalities of the industrial food system. Similarly, Friedmann names a Corporate-Environmental

Food Regime arising in response to demands for environmental and social justice demands (Friedmann 2005).

To a lesser extent, ameliorative tendencies have also been documented specifically within the sphere of ag development and food security programs. For example, so-called Climate-Smart Agriculture (CSA) has become a dominant frame for multilateral organizations to, at least discursively, square the goals of increasing agricultural production with the real threat of climate change (Newell and Taylor 2017). In general, these regime reforms are categorized as examples of cooptation or greenwashing—the selective appropriation of social movement demands in ways that don't dramatically alter the trajectory of capital accumulation (Friedmann 2005; Newell and Taylor; Guthman 2004). Rather than subvert the New Green Revolution, they are ways of cleverly maintaining its hegemony.

Contributions in this vein add significant nuance to contemporary food regime theory, allowing for dynamism, change, and transition. However, they share with the New Green Revolution critique the assumption that food security practice is driven by policy, and that trends in food security practice can be explained by master plans that serve coherent, nefarious ends. From this macro-comparative perspective, the intentions of food security institutions are often apprehended from a few high-level policy documents, namely the *Comprehensive Framework for Action* released after the UN Food Summit in 2008, the Millennium and Sustainable Development Goals, and the World Bank's *World development report 2008: agriculture for development* (Li 2009). It is not surprising this literature draws on these analytical tools as political economy has been the backbone of critical agrarian studies; nor is it inherently problematic—as it generates important theoretical insights about the role of food and food policy repairs in the world economy. However, this perspective is less attuned to exceptions and less useful for explaining variegated responses to similar structural circumstances. In particular, this perspective is less useful for understanding the kind of variation or disjuncture that is of interest to this study.

An interface approach to food security projects

In Guatemala, under the banner of the FtF policy model, responses to food insecurity are highly varied—including activities both reflective and antithetical to the New Green Revolution. Rather than being reflective of a coherent master plan, I argue that significant variation can be traced to individual actors and their interactions on the ground. Following in a long tradition of development sociology and anthropology, I draw on an 'interface approach' to help

explain heterogeneity in FtF projects and the disjuncture between the FtF policy model and its practices.

As described by anthropologists Arce and Long (1987), an interface approach analyzes the encounters between different groups involved in the process of planned intervention, paying particular attention to the 'encounters and confrontation between actors and their ideas and values' (53). Rather than treat development practice as monolithic, emanating from the top-down from high-level policy documents, development practice is treated as a situated social practice; interventions 'enter the lifeworlds of individuals and groups and become mediated and transformed by them' (Long 1990). While discourses or policy models may be dominant or coherent at the institutional level, when policy models hit the ground, they interact with individuals, institutions, and social groups, with various histories, preferences, and goals. These interactions reshape, limit, or make possible different kinds of practices. In other words, a policy model determined by international financial institutions at the UN Food Summit may structure what gets written in FtF Guatemala project plans, but it is only part of the picture.

Researchers taking this approach have attempted to fill in the rest of this picture, demonstrating how development policy and development practice diverge in diverse settings (Arce and Long 1987; Bastiaensen, De Herdt, and D'Exelle 2005; Beck 2016; Campregher 2010; Long 1990; Mosse 2004). Helping pioneer this approach, Norman Long (2001) showed how the plans of engineers carrying out water projects in Mexico were constantly transformed and even thwarted by field personnel who held different values—values shaped by first-hand experiences with project beneficiaries. In his research in India, Mosse demonstrated how despite the good intentions of field-based staff, 'participatory' models intended to guide development programs were constantly thwarted both by local elites and the external interests of experts with their own agendas (Mosse 2004). More recently, Beck (2016) applied this approach to microcredit programs in Guatemala. She found that field-based staff used project discourse strategically, emphasizing educational aspects of the programs in conversation with higher-ups while at the same time colluding with project beneficiaries to reduce the time and effort spent on such activities (Beck 2016). She concludes that these microcredit programs were the product of both top-down policy models and the "emergent interactions between actors involved at various levels of development" (26).

As one of its key thinkers, Norman Long (2001) admits an interface approach is neither a "fully elaborated theoretical model nor toolkit of methods". It's also not exceptional from other kinds of actor-oriented analysis and is built on several theoretical traditions including actor-network theory (Callon 1984; Latour 2005, 2012) as well as the methodological

traditions of development ethnography and the ethnography of organizations (Gardner and Lewis 2000; Harrison 2013; Lewis and Mosse 2006; Mosse 2008; Rossi 2004). This approach is also in line with the work of development geographers who privilege the role of sociospatial difference and 'contingency' in understanding how development policies work on the ground (Herrick 2016; Nichols 2019). In agreement with these scholars about the contingent nature of development projects, I focus specifically on the ways food security projects are contingent on actors and their relationships. This is not to downplay or write off other kinds of sociospatial properties that may also be at work. Rather drawing on this 'interface' approach reflects one attempt to grapple conceptually with the 'flexibilities, ambiguities, and socially constructed nature' of development projects, and to find conceptual handles for doing so' (Long 2001:xii). After describing my methods, I demonstrate how two 'conceptual handles' from this approach are useful for understanding the variegated food security practices of USAID and associated food security brokers in Guatemala: individual actors' strategies and the interactions between ideologically opposed individuals and social groups.

Methods

This research was motivated by gaps I observed between market-based food security projects on the ground and dominant descriptions of them, perpetuated by both development agencies and critical scholars. My first exposure to FtF programs was in 2015 when I spent nine months in Guatemala designing a social inclusion strategy for an FtF-funded project. I experienced firsthand the complex relationship between food security policy and food security praxis which motivated me to better understand how food security projects get made and refracted in particular settings.

All told, I spent five months between 2019 and 2021 conducting interviews and ethnographic research in the Western Highlands of Guatemala—the rural, agricultural area where FtF is being implemented. I focused on projects and project activities that are 'nonconforming', in the sense that they valorize ancestral crops and farming methods, subsistence production, or otherwise diverge significantly from FtF's market-based approach. Two of these projects are *Buena Milpa* and *Mas Frijol* though I mention and describe others with similarly 'non-conforming' components.

I used a range of ethnographic methods including semi-structured interviews, oral histories, and participant observation, as well as some analysis of secondary sources. In total, I interviewed 65 individuals from two rural field sites and several offices, including both USAID and their implementing partners at various levels (from Washington to local

field sites). I also interviewed past USAID employees and contractors who were not currently working for the agency, food security NGO workers with no direct affiliation to USAID, and some social movement actors. A small number of interviews took place on Zoom, but most took place in person either in NGO offices or in rural field sites where FtF projects are being implemented. In addition to their accessibility and willingness, respondents were chosen for interviews based on their proximity to FtF and their knowledge of the food security landscape in Guatemala. Except for a handful of interviews with English-speaking development workers, interviews were conducted in Spanish.

Observations focused mostly on FtF programmatic activities. I often went along with development workers, conducting field visits, eating lunch, and partaking in informal conversation. This exposed me to the ways development workers talked about their work, their aspirations and goals, and the otherwise quotidian ways development workers mediated food security policy. Observations notes, interview transcripts, and archival documents were coded and analyzed in NVivo. I have given informants and the NGOs they work for pseudonyms. Specific FtF project names are not disguised with pseudonyms, as these projects are highly publicized and difficult to conceal. After some background on Guatemala, I begin to describe those projects.

Feed the future in guatemala

Rural Guatemala has long been a site of friction between competing development paradigms. Guatemala is a highly unequal, racialized society. Less than 2.5% of farms occupy nearly two-thirds of agricultural land (USAID 2023). The burden of this inequality falls most heavily on the country's Indigenous peasant class who have long been socially, politically, and economically marginalized. Policies and social movements have attempted to recalibrate this system, often through agrarian restructuring. During a brief period from 1944 to 1954, two democratically elected presidents pursued redistributive policies, including a rural development program based on land reform (Handy 1984). Following a 1954 coup, however, USAID partnered with Guatemala's new military government to usher in more palatable forms of indigenous inclusion and rural development programs based on agrarian modernization, green revolution technologies, and market access (Copeland 2012; Grandia 2014). This apolitical approach to Guatemala's agrarian problem focused on technical and market fixes ultimately fueled rural unrest and set the stage for extreme state violence in later decades (Copeland 2012; Grandia 2014).

The 36-year counterinsurgency against leftist rebel groups, which formally ended with the 1996 peace accords, included acts of genocide and left many indigenous communities devastated (Commission for Historical Clarification 1999). In the roughly two decades that have passed since, Guatemala has largely followed broader trends towards neoliberal agricultural restructuring, including the dismantling of state agricultural institutions and trade protections, characteristic of much of Latin America and the Global South over the past four decades (Isakson 2014). One effect of agricultural liberalization in Guatemala has been to diminish the role of traditional maize-based subsistence farming in favor of non-traditional export (NTX) crops, like snow peas and broccoli, for sale in Northern markets. The share of imported maize in Guatemalan maize markets has increased significantly since the passage of DR-CAFTA in 2006, which relaxed quotas and import tariffs on US maize (Grandia 2014). During this same period (since the 1970s), reliance on non-traditional export crops (NTX) has dramatically increased, largely due to USAID's enthusiastic promotion of NTXs as a pro-poor Development initiative (Carletto, De Janvry, and Sadoulet 1999; Conroy et al. 1996; Isakson 2014). Neoliberal agricultural restructuring has not fared well for rural Guatemalans (Carletto et al. 1999; Carletto, Kilic, and Kirk 2011; Fischer and Benson 2006; Isakson 2009).

In combination with other forces, rising fertilizer prices, and climate change-induced drought among others, agricultural restructuring has resulted in some of the highest levels of food insecurity and malnutrition in the western hemisphere (WFP 2023). The situation has inspired various responses: food aid from the World Food Programme, food security programs implemented by international development agencies, and grassroots food movements. Launched in 2010, FtF is part of this milieu.

FtF is the US government's self-declared 'flagship' food security program. Led by USAID, FtF brings together various government agencies to address food insecurity with a "whole-of-government" approach (USAID 2021). The initiative can be located within a larger global shift in attention to the cause of food insecurity, driven by the food crisis and the likely failure of Millennium Development Goal one (Target 1. c), to halve the proportion of people who suffer from hunger. This setback served to amplify rallying cries and deepen commitment to the cause of global food security (FAO 2008; McMichael and Schneider 2011). Renewed emphasis on agricultural development and food security marked a reversal in the prevailing trend in the last two decades of the 20th century which saw a regular and drastic decline in agricultural spending (USAID 2013). To secure funding from Congress, FtF was billed as an opportunity to reestablish U.S. leadership in agricultural development and food security (USAID 2009:9)—though the direction of this

leadership seems less clear than either policymakers or critical development scholars acknowledge.

On the one hand, USAID describes FtF as a return to the golden years of the GR which they describe as a "high point in humanity's effort to feed itself" (USAID 2013:138). Relating FtF to the GR, USAID describes the post-food crisis era as one that demands "the kind of large-scale results that Dr. Borlaug achieved" and an opportunity to "build on the legacy" of the GR (ibid.). In this tradition, FtF emphasizes a commitment to science and technology and frames the problem of food security as primarily one of productivity. Not surprisingly, biotechnology features prominently in FtF's strategy. For this reason, FtF has become a high-profile and easy target for critical food studies scholars. Nally (2016), for example, labels FtF as a "turbo-charged Green Revolution" (Nally 2016; 564).

On the other hand, the Obama-era initiative brands itself as a break from the past, an outside-the-box approach to the problem of food insecurity, born from the lessons learned from past failures (USAID 2021). In formal reports, they acknowledge both the environmental and social externalities produced by the GR and promise a "fundamentally different approach to development that places smallholder farmers, especially women, at the center of country-led efforts to transform agriculture" (USAID 2013:iv). This struggle, to cling to the tools of the past but reframe their deployment is characteristic of the "contested landscapes" of food system fixes in the era of climate change and food 'crises' (Newell and Taylor 2017). This tension is evident in FtF programming.

Nonconforming food security projects

FtF has been working in Guatemala since its inception (2010). FtF aims to reduce poverty and childhood stunting by targeting those categorized as the most vulnerable municipalities in the Western Highlands of the country with three broad focus areas: agricultural value chain development, integrated health and nutrition, and local governance and resilience (Hamel 2019). Guatemala's FtF portfolio is large and diverse. Over the history of its implementation, there have been between ten and fifteen different projects running concurrently, with diverse project activities, all managed by different contractors. Two of its biggest projects per funding dollar at the time of this study (2019–2021) play into many of the characterizations of the New Green Revolution. They are managed by private-sector rather than NGO partners and are principally aimed at "value-chain" activities—linking horticulture and coffee producers to new or "improved" export opportunities. For example, FtF Guatemala takes credit for creating $32 million in total sales in the coffee sector. This value has been created through FtF's work training farmers in "good agricultural practices" and phytosanitary requirements to obtain specialty coffee certifications and sell to FtF partners like Starbucks (Hamel 2019). It's easy to see how such projects service the corporate food regime, by integrating smallholders into global markets, facilitating free trade, and subsidizing US corporations.

Other programs, however, defy easy categorization. In Guatemala, FtF's activities also include the funding of community seed banks for in situ seed saving, native seed fairs, and household gardens. Rather than modernizing or neoliberal, ostensibly these activities valorize ancestral crops and subsistence production. Projects that stand out as primarily dedicated to these activities include the project Edgar described, *Buena Milpa*, a project implemented by the Maize and Wheat Improvement Center (CIMMYT). Another is *MasFrijol* (more beans), which was managed by the Legume Innovation Lab at Michigan State University. Both projects were implemented between 2014 and 2019, and as their names imply, focused on traditional, subsistence-oriented crops. While these projects are exceptional in their exclusive focus on traditional crops (maize and beans), they are not entirely distinct from other FtF Guatemala projects. Some projects with a clear market-based approach also contain a mixture of activities that are both characteristic of and antithetical to the New Green Revolution critique—which I describe in the following section.

Buena Milpa can be translated literally, as good *milpa*. *Milpa* is most often understood as a system of intercropping attributed to the Maya. Maize plants provide structure for climbing beans, which together provide shade for a variety of squash and other short bush crops. The system is often described as mutually beneficial and holistic; beans enrich the soil with nitrogen-fixing bacteria while squash protects the soil from erosion, help maintain water moisture, and limit weed pressure (Isakson 2009; Kline et al. 2020). Rather than locate the problem of food insecurity in a lack of technology or the need for agricultural modernization, development actors associated with the *Buena Milpa* project explain the problem of food insecurity in the Guatemalan highlands as a loss of traditional practices (Kline et al. 2020:75). The loss of traditional milpa is situated as part of the larger problem of decreasing maize self-sufficiency, and a decline in food self-sufficiency through agricultural activities more generally (Kline et al. 2020; Lopez-Ridaura et al. 2019).

Similarly, *MasFrijol* was conceived to address the problem identified by USAID and their partners of decreasing black bean production and consumption (Legume Innovation Lab 2014; Feed the Future 2018). Despite being a staple part of the Guatemalan diet, the former project director for *MasFrijol* explained in an interview that the decision to eat beans, especially for the poorest households, is constrained

by finances because beans are too expensive to buy in the market and too infrequently grown for subsistence. Much like Buena Milpa, one of the key strategic approaches of MasFrijol is to "enhance the productivity of traditional milpa". To achieve this broader goal, both projects implemented several different activities—many of which are incongruous with the New Green Revolution as described by scholars.

To start, both *Buena Milpa* and *MasFrijol* implemented some form of seed banks. Having identified access to high-quality bean seeds as one barrier to bean production and consumption, *MasFrijol* (Legume Innovation Lab 2014) implemented what they called *almacenes comunitarios* (community seed depots). Because the amount of bean seed needed per hectare is heavy and voluminous, the cost of transportation and storage is what often drives the cost of beans up. Community-based seed banks, located within a short distance from farmers, were identified as a practical solution to encourage bean production and consumption.

While *MasFrijol* used the name 'community seed depot' Buena Milpa preferred the term 'community seed banks'. In the final report for the project, staff described the purpose of seed banks as part of the project's broader strategy to conserve native maize varieties and other important regional plants and provide a safeguard for farmers in case of droughts, floods, or other emergencies that result in the loss of crop and genetic material (Chaclán 2019). In effect, in the highland communities where the project worked, maize for next year's harvest is typically stored in the house, either hanging on the porch or in a sack. The implementation of the seed banks involved constructing a dedicated space for seed storage, training farmers in post-harvest storage techniques, and providing air-tight recipients to prolong seed conservation (Chaclán 2019:9).

Seed banks were also used as spaces to train farmers in seed collection and breeding practices. Another of the project activities carried out by Buena Milpa was termed 'participatory seed breeding'. This involved first identifying local preferences and needs for native maize improvement. Among the characteristics desired by community members were improving maize height to reduce the chances the plants would fall over in strong winds, increased productivity, and drought resistance. Rather than meet these expressed needs through private-sector partnerships or the introduction of new genetically modified or hybrid seeds, as FtF has done in other contexts, *Buena Milpa* trained farmers in in-situ seed breeding techniques. This involved project staff training community members in selection, validation, and maize seed production techniques, resulting in anecdotal improvements in size, productivity, and drought tolerance after three years (Chaclán 2019). Other FtF Guatemala projects also trained farmer households in seed replication.

The Coffee Value Chains Project, one of the largest per-dollar projects of the FtF portfolio at the time ($21 million over five years) (Hamel 2019) funded the installation of household gardens and trained farmers, mostly women, in horticulture seed multiplication.

One of the key features of the New Green Revolution is the way it proposes to tackle global hunger through technological investment (Nally 2011; Otero 2012). Critical food studies scholars point out how biotechnology and other heavily chemical-dependent and capital-intensive technologies have become a key feature of the plan (Nally 2016). As has been acknowledged, such technologies are evident in FtF promotional material and high-profile projects—in particular AGRA (McMichael and Schneider 2011; Nally 2016; Patel 2012). However, the term 'technology' is often loosely defined.

Milpa, for example, is often referred to as a technology. Soil and water conservation techniques are also referred to as technologies. The *Buena Milpa* project focused on ten water and soil conservation techniques, none of which fit comfortably within the New Green Revolution characterization of 'technology'. Of the ten technologies endorsed by the project, the most applied were living hedgerows, contour farming, mulching with harvest residue, and the application of organic fertilizers such as vermicompost. Most of the ten technologies can be found in the Food and Agriculture Organization's online Agroecology Knowledge Hub listed among agroecological practices (FAO 2023). The project applied this terminology themselves, calling a field school for extension agents they facilitated a course on "the implementation of agroecological practices" (Chaclán 2019:64). In many cases, the project implementers boast that these practices have reduced dependence on chemical fertilizers and pesticides. They describe this result of the project as a boon for farmers in terms of cost-savings, as well as a benefit to local ecological conditions (Chaclán a 2019; Kline et al. 2020)—claims that sound more like promotional material for agroecology than for the New Green Revolution.

In these and other ways, FtF programs in Guatemala defy prevailing representations of its activities and intentions—both those circulated by USAID and in critical food regime scholarship.

Development workers as mediators

In the following section, I offer one explanation for these variations in food security practices using an interface approach. First, I draw attention to individual actors' strategies to show how development actors act as mediators to alter the trajectory of food security projects. Second, I analyze the interactions between ideologically opposed/

different individuals and social groups and show how these 'interfaces' shape actors' preferences, goals, and strategies. I argue that this approach is useful for making sense of non-conforming FtF projects that diverge from its market-based, neoliberal policy model.

Central to an interface approach is the analytical attention to human agency, recognizing the ways individuals have the capacity to make a difference, to alter a situation or the course of events. Actors involved in development, policymakers, front-line workers, and intended beneficiaries "exercise agency by reflecting on their experiences, assigning various goals and meanings to projects, and acting in diverse ways in the face of given development models" (Beck 2016:21). While policy models and project plans may emanate from above, individual actors and social groups can interpret, resist, conspire, bend, and otherwise mediate official discourse. In the case of USAID food security practice, actors used various strategies to bend official policy prescriptions toward more progressive ends.

As evident throughout conversations with USAID office staff and NGO field staff, there is often a loose coupling between the goals of development workers and official descriptions of FtF activities. In the case of *Buena Milpa*, several project staff identified as activists or had been previously involved in food sovereignty or more radically oriented organizations. Norah, an indigenous *Mam* woman who worked as the communications coordinator for the project, previously worked for REDSAG (Guatemala Food Sovereignty Network) and was actively involved in social movement campaigns against genetically modified organisms (GMOs) and the privatization of water. When discussing the *Buena Milpa* project with her, Norah framed the project as a defense of seeds against threats from transnational corporations. Her concerns about dispossession as an Indigenous *campesina* strongly resonated strongly with the food sovereignty paradigm.

Another staff member, an agronomist named Juan Carlos, also came to the project from a more politically inclined organization. Juan Carlos cut his teeth working at a popular education NGO called ACED. On ACED's website, they describe their mission in ways that align them clearly within a more radical orientation. Describing their work, they write,

> We unite to work together to try to eradicate the causes of inequality, poverty, and oppression in Guatemala, promoting the organization and collective action of people and communities, especially poor indigenous and *ladino* people, excluded by the system in which we have lived from the local to the national, towards the construction of a popular, fair, and democratic Plurinational State free of neo-colonialism.

This political orientation and statement against "neo-colonialism" clashes with USAID—whose work in Guatemala over the last fifty years has been widely criticized as an instrument of the US imperialist project (Copeland 2012; Grandin 2006; Schlesinger et al. 2005). However, rather than a barrier to entry, Juan Carlos's previous work at ACED seemed to facilitate his employment on a USAID project. Both he and the project director who hired him described first becoming acquainted through an event at which both organizations were present. They also described his experience in popular education as a natural fit for the work he did as Training Coordinator for the *Buena Milpa* project. Rather than an exception to the rule, stories abound of development workers, like Juan Carlos and Norah, bouncing between organizations with different political orientations.

Actor strategies

This is significant because, at least in some cases, who organizations employ affects the kinds of practices they adopt. Juan Carlos described his decision to work with USAID in nuanced terms. He expressed initial resistance to working for a USAID project but reasoned that the actual project activities were something he could get behind without compromising his convictions. In hindsight, he described being glad he opened his mind to working for USAID because he was able to make a change from within. He explained,

> For me, it wasn't avoiding USAID money, rather it was being there and being able to make a change, seeking to have some influence. I think that was my perspective when I was there, although personally, I did question myself at some point, especially when I saw some of the project expenses—money being spent on insignificant things when it was supposed to be for the benefit of rural people. But I feel very satisfied, in fact, because with USAID…they managed to understand that there is another vision of development apart from the one they promote—there's an alternative… Fortunately, I had to do a lot of presentations in the field with them [with USAID staff]. I always slanted my speech in that direction, to promote alternatives.

While Juan Carlos admitted that "it's difficult to measure if this really changed anything in USAID", there were clear examples where he and other project staff were able to shape the trajectory of the project.

One alternative Juan Carlos takes credit for is incorporating 'aves criollos' into the *Buena Milpa* project. Rather than industrially raised laying hens or '*gallinas*', *aves criollos* are a heritage variety of hens. Projects with *gallinas* are popular with NGOs because the laying hens, which are

purchased from a breeder, are bred to grow quickly, and produce a lot of eggs. At the time of my visit in 2021, *gallina* projects were being incorporated into all of USAID's food security projects, mostly touted as an entrepreneurial activity for women. In contrast, on Juan Carlos' insistence, *Buena Milpa* promoted local heritage breeds, training community members on how to breed the hens themselves to achieve more favorable qualities over generations. *Aves criollos* don't lay as many eggs but are more genetically diverse and thus require fewer antibiotics. They are also fed locally available materials rather than agro-industrial chicken feed, and their meat is as prized as the eggs, contributing to household dietary diversity.

While the differences may seem slight, *aves criollos* are also valued by Guatemalan agroecology and food sovereignty activists. During a virtual course on agroecology organized by REDSAG, reviving and maintaining heritage breeds of chickens was described as central to the work of agroecology and food sovereignty in Guatemala. The instructor of the course, a leader in the Guatemalan food sovereignty movement positioned *aves criollos* as a way to reduce dependence on agro-industrial implements and to prioritize family and community needs over profitability. This is not how USAID describes the *Buena Milpa* project. Moreover, USAID also simultaneously implemented projects which fly in the face of these goals, like the *gallinas*, which seemingly increase dependence on agro-industrial implements and prioritize profitability. However, individual actors were able to push USAID's work to favor regional food systems and more agroecological animal production.

There are other scenarios in which individual actors strategically 'promoted alternatives' in ways that bent the models of the institutions they work for. Marco is a former manager of the *Mas Frijol* project. He described the project as his "brainchild". We connected on Zoom. He sat behind a big desk in his office, giving the interview a formal air. I asked Marco to tell the story of how the project came to be. He marked the origins of the project in the 2007/2008 food crisis, which he linked to a decline in the demand for exports and a renewed interest at USAID in 'strengthening the capacity of farmers to feed themselves'. Marco outlines a direct relationship between macropolitical-economic events and the decision by USAID to shift from export-oriented to subsistence-oriented projects. However, in our interview, he also described various ways he and other individuals made *MasFrijol* possible and influenced the project's trajectory.

In particular, he assigns weight to one higher-up at USAID-Guatemala. Continuing his story about MasFrijol, he explained,

> We made a presentation to USAID Guatemala…and the person that was at the time at USAID… He pulled

me on the side and said, "Can you believe all this emphasis in food security, and we keep putting our money in the same things. Not even 5% is going to helping families raise their own food. So, I'd like to see how we can work together under the leader-with-associate awards" [a particular kind of sub-grant] … and everybody was in such a hurry, I remember, but thanks to this person at USAID we worked fast. And through our leader-with-associate award, he made it possible. And I know it's an entire team, but I refer to him as the leader.

In his telling of the story, Marco suggests *MasFrijol* would not have been possible without the goodwill of this individual, frustrated with previous food security projects and with a personal interest in promoting subsistence agriculture. Within the structures of USAID and FtF, this individual was able to maneuver to pursue his project and goals. While his convictions and motivations are unknown (he declined an interview), by promoting subsistence bean production rather than commercial agriculture this USAID manager bent the organization in ways that thwart key critiques of the New Green Revolution.

Sometimes creating space for alternatives requires what one USAID contractor called "being like a coyote", which he described as 'working around USAID's politics to arrive at the end goal'. The end goal for Thomas, who said this, was to mainstream agroecological principles in USAID's food security work. Thomas is a self-described "Agroecology, Permagarden, and Resilience Design consultant" with over 30 years of experience in the development sector. Ironically, I met Thomas through a panel presentation at the 2020 Borlaug Dialogue, an event sponsored by the World Food Prize Foundation with a heavy presence of big agriculture corporations. Alongside panels sponsored by Syngenta and Bayer, was a panel titled "Agroecology in Action", which included Thomas as a panelist. He talked extensively during his presentation about various USAID projects, in Nepal and Uganda, which were implementing agroecological principles. Though Thomas hadn't worked in Guatemala, I decided to interview him to understand more generally the relationship between USAID and agroecology.

Thomas told an interesting story about a USAID project he was an advisor to. USAID describes the project as an "applied research and knowledge sharing initiative" with the stated intention of informing and improving USAID food security work. The initiative became a mechanism to promote agroecology within USAID. Thomas told the story of how this was achieved. He was responsible for organizing a workshop about best practices in agricultural development for USAID which would be attended by "ag insiders"

[referring to agricultural technical experts in the development industry]". He went on,

> …but we didn't have the insiders give presentations, we had Rick Jordan [pseudonym for an internationally recognized leader in the field of agroecology] give the keynote address [Thomas laughs like this is outrageous]. Rick basically thought USAID was the antichrist…he was totally shocked we wanted him to give this talk. Up until 2015, agroecology or permaculture was not a part of USAID…We were asking ourselves, "how do we get our foot in the door at USAID?". Well, we didn't call the conference "agroecology"… we were asking ourselves how can we be like coyotes? How can we work around it to arrive at the end goal? So, we came up with 'resilience design'. Resilience design takes permaculture and agroecology and applies it or makes it relevant in a humanitarian setting…Basically, we've since spent the last five years trying to get USAID to do this and as a result, we've seen USAID embrace these techniques.

To Thomas, language was everything. Using terms like 'permaculture' or 'agroecology' makes people at USAID "freeze up" and "think of people in Birkenstocks". Instead, in the conference they used less charged language, and "came in talking about water and soil"—things people could relate to.

While there were likely other factors at play making USAID more receptive to their ideas, Thomas makes a compelling case that he and other individuals were able to strategically use language like "resilience design" to create space for agroecological practices within USAID projects. An interview with Jon, a Senior Advisor at USAID supports Thomas' claim. Jon affirmed that, in his words, "the personal can become policy". According to Jon, as someone reviewing projects and grant applications, if you can justify why you are choosing a model, neither he nor the agency has any objections to particular models. I asked him to explain what it would take to extend the reach of a particular model, like agroecology, within the agency. According to Jon, the advancement of agroecology or permaculture would likely take place at the personal level. He described the informal interactions that take place on trips to mission offices or to visit projects in the field as prime opportunities to encourage approaches. He said, "I've told different NGOs, "We are now supportive of X, Y, and Z practice whereas previously we weren't for whatever reason. Now we are, so feel free to include that in your applications in the future." To Jon, this kind of "informal advisory" that happens on the ground, can be more effective than policy because administrations and policies are always in flux.

To illustrate his point, he gave the example of the Trump administration and climate change. According to Jon, he and others at the agency would downplay "climate change" and instead talk about "sunshine, temperatures, and water" to address climate change in training and projects. According to Jon, this is the way the business works. He explained,

> It's like when you're talking with your Mom and Dad…you speak to them the way you know they're going to say yes. They know [NGO contractors] very quickly, like under the last administration [The Trump administration], to write things a particular way to be able to get their money.

Much like Tom's point about "being coyotes", in Jon's analogy, USAID is like a parent and NGOs are cunning children—they say what they know the parent wants to hear to get their way.

While neither Tom nor Jon could remember having direct interaction with FtF Guatemala, both have used their influence at USAID Washington to mainstream agroecology at the agency. As Jon outlined, USAID Washington has direct relationships with NGOs and country missions, creating ample opportunities for "informal advisory", often through individual-level interactions. While impossible to prove, it's possible this higher-level work at the agency, like the 3-day agroecology conference in DC, had trickle-down effects that helped reshape the horizons of possibility at USAID Guatemala and create space for nonconforming projects like *MasFrijol* and *Buena Milpa*.

At different levels, both on the ground in FtF Guatemala projects and the higher echelons of USAID Washington food security practice, individual actors drew on their personal histories, preferences, and goals to translate USAID's food practice into something less clearly neoliberal—to favor more agroecological practices, favor local and regional food systems, and prioritize subsistence rather than market-based production. A read of USAID's website, or their Global Food Security Strategy (GFSS) for Guatemala (Feed the Future 2018) presents a coherent and stable narrative of their food security work—aligning well with the Corporate Food Regime. On the ground, however, food security practice is contested and negotiated, mediated by the beliefs and definitions of individual actors who had significant room to maneuver. There were multiple interpretations of official policy, based on moral views of what should or should not be implemented (Rossi 2004). Various actor strategies in turn shaped project trajectories and ultimately bent the actual activities of USAID food security work in ways that are uncharacteristic of the New Green Revolution.

Encounters between institutions and social groups

Individual actors like Thomas describe their strategies as premeditated attempts to bend food security projects to better fit their preferences or politics but often had difficulty elucidating how their preferences or goals took shape. The interface approach draws attention to social relationships and interactions with particular attention to the ways that conflicting values and knowledge systems interact and with what consequences (Arce and Long 1987). The very idea of 'interface' denotes encounters between individuals "representing different interests, resources, and levels of power" (Arce and Long 1987:7). Within the Guatemalan food security landscape, attention to the interactional nature of food security work reveals how encounters between ideologically different actors may reshape the perceptions and goals of various parties.

In the case of Amelia, her encounters with the to-be-developed reshaped her worldview which had ripple effects on the food security-oriented NGO she worked for. Amelia is European but has made Guatemala her home for nearly 30 years. She came to Guatemala as a veterinarian with an international NGO (INGO). At that time, the INGO practiced animal husbandry that she referred to as "Western or modern". Rather than 'ask about local beliefs or knowledge regarding veterinary medicine' they just implemented the Western perspective they were familiar with. This Western model included amongst its practices introducing genetically "superior" varieties of sheep from the United States. In a short biography she shared with me, Amelia wrote the story of these sheep in the Western Highlands and how they shaped the trajectory of her life and the work of the INGO in Guatemala.

In a series of workshops she was instructed to give about castration, one Mayan elder became increasingly incredulous about her methods, verbalizing his disagreement in front of the group. Growing tired of his interference, Amelia challenged the man to a contest; she would castrate one his way and she would do the other using standard Western veterinary practice and both would bring the sheep to the following workshop for everyone to see. She wrote,

> The following week, again hundreds of people gathered to see the animals. The owner of the two sheep arrived with one in each hand, tied with a noose. Both were still alive, but one was jumping happily and the other walking slowly, still in pain. When we saw the wounds closely, I couldn't believe it! The male I had castrated was fine, but the wound was inflamed, red, with some dried blood around it, attracting flies. The male that the elder castrated was perfect! No

inflammation, no redness, nor flies; You couldn't even see the wound if you wanted to.

According to Amelia, this encounter changed her life. After this experience, she dedicated herself to learning about, investigating, and promoting ethnoveterinary practices, based on the ancestral knowledge of Mayan elders. She describes ethnoveterinary practice as a direct affront to industrial animal production and the kinds of practices she once promoted as a part of VSF. Rather than simply an individual ideological shift, Amelia was able to affect change in the larger institution. In the early 2000s, Amelia secured funding from the INGO to gather information about ethnoveterinary practice in Guatemala to produce and distribute manuals throughout the country. She eventually became the Central American Regional Coordinator for the organization and was able to give this emphasis to the broader mission of the organization.

Amelia does not work for USAID, but her story serves as a memorable archetypal narrative of the kinds of stories that also abound within USAID food security projects. In contrast to Amelia, most of my informants were current employees of USAID or their contractors and thus did not speak as openly about failure. Many, however, acknowledged more subtly they were wise to the limits and blind spots of the projects they were a part of. Like Amelia witnessed the failure of Western veterinary practice, so too USAID employees and their NGO field staff told stories about their experiences with food security flops—tomatoes being left to rot, berries wilting on the vine, communities eating livestock they were expected to breed, nutrition advice poorly matched to diets. After spending the day together visiting project sites for the FtF project she worked on, Maria, a tenured development professional told me 'all the *proyectitos* (little projects) are basically the same and nothing is really going to change for rural smallholders until the political situation changes'. She used the diminutive "*proyectitos*" to emphasize their impotence to address the structures she saw at the core of food insecurity: corruption, stark inequality, and corporate greed. She mentioned thinking of getting involved in politics or getting together with others to start a political party but asked rhetorically "how much would that cost?", concluding in resignation. Maria seemed resigned to keep going along with business as usual, but at the same time signaled her experiences with the 'to-be-developed' were transformative—they restructured her knowledge framework and gave her a different perspective than the policymakers.

Not every story, Maria's included, led to perceptible consequences. On the other hand, encounters and relationships between groups with conflicting values and knowledge systems can also have larger political consequences. In 2014, proposed legislation that would have allowed

the commercialization of (GMOs) in the country galvanized opposition from both a technocratic class of Guatemalans in the agronomy sector as well as Indigenous and rural *campesinos* (Grandia 2017; Seay-Fleming 2022). Mainstream agronomic engineers, many of who are "true believers in Green Revolution technology", came out in opposition to GMOs and defense of the farming poor (Grandia 2017:59). This outcome, though not necessarily counter-hegemonic (Seay-Fleming 2022), can in part be attributed to the regular encounters and shared experiences between these groups. Agronomic engineers and other technically trained agricultural professionals often cycle in and out of development projects, between other jobs or to supplement low-paying work in other sectors. In these roles, agronomists who may otherwise be unfamiliar with rural poverty become 'frontline witnesses to Guatemala's stark agrarian inequality' (Grandia 2017:77). Interfaces may not always lead to perceptible consequences, but these everyday shared encounters shape actors' perceptions, their models for action, and often lead them to devise their own strategies (Arce and Long 1987; Beck 2016; Lewis and Mosse 2006; Long 1990, 2001; Mosse 2011). We can expect that these kinds of interfaces will continue to shape food security politics in both obvious and less perceptible ways.

Conclusion

This kind of friction, between the to-be-developed and food security technocrats, might occur more often in Guatemala than in other food-insecure countries in the Global South. The profile of agricultural development workers in the country may also be distinctive. Many agronomists come from humble backgrounds, and many have an interest in alternative agriculture. However, because of a shortage of well-paying nonprofit jobs in alternative agriculture, agronomists with this profile may find jobs in Development despite maintaining 'private political beliefs to the left of what their employment allows them to express' (Grandia 2017:77). Certainly, some of my informants fit this profile. The proliferation of diversely motivated food security fixes also creates ample opportunity for intermingling and may contribute to the malleability of food security projects in Guatemala. In other words, the extent and direction in which Development workers mediate and coopt food security projects are contoured by the material conditions and social relations specific to Guatemala.

Feed the Future also has a specific milieu. The initiative is highly decentralized and relies on a myriad of NGO contractors and sub-contractors to achieve its goals, creating a complex web of relations and diffuse sites of decision-making that may create extra space for individual agency.

However, while this may differ significantly from some kinds of food security work—like the distribution of food aid which is more tightly controlled from the top down—this decentralized structure is common to other large-scale international development approaches to food security. Foreign aid donors employ legions of contractors and sub-contractors in increasingly complicated aid chains to reach their beneficiaries (Bebbington 2005; Watkins, Swidler, and Hannan 2012). So, while the amalgam of these factors creates a unique formation in which actors were able to work around neoliberal food security policy in interesting ways, many of these aiding factors are not exceptional.

> This focus on actors does not rule out the importance of other sociospatial conditions in shaping food security practice—including more structural forces (like the 2007/2008 food crisis). Rather, attention to both interfaces and actor strategies reinforces the argument that food security practices are matters worked out in particular sites, and shaped by an infinite combination of factors, including but not limited to actors and the relationships between them. This interface approach is just one conceptual tool that has helped demonstrate the social life of food security projects, and the way discourses and practices spill over, not only from differently-minded NGOs and development workers but between NGOs and other areas of civil society. Most importantly, this research reveals ways actors and social groups mediate and transform projects—actors and their interactions have material consequences for food security practice. Specifically, individual actor strategies and interfaces help explain why despite its neoliberal, productivist policy model, FtF programs in Guatemala engage in practices that diverge significantly from this model.

These findings don't preclude the possibility that 'nonconforming' projects and project activities can serve nefarious ends such as greenwashing. There is reason to doubt the sincerity of USAID reform efforts—as the 'green regimes' critique suggests. However, there is also reason to treat these efforts more seriously. Food security discourses and practices of other bureaucratic institutions have proven to be more malleable than previously thought. The Food and Agriculture Organization's embrace of 'The Right to Food' and inclusion for civil society participation through the Committee on Food Security is one high-profile example (Pritchard et al. 2016; Sonnino, Marsden, and Moragues-Faus 2016). This research suggests that such openings for more socially and ecologically sustainable food security projects may emanate from individual actors and their rarely predictable interactions rather than the master plans of

policymakers. To continue to improve our understanding of the current food repair landscape and usher in new kinds of agrifood systems we need to "cast our nets widely in many directions" (Friedmann 2016:677)—this needs to include attention to actors, institutions, and their interactions.

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